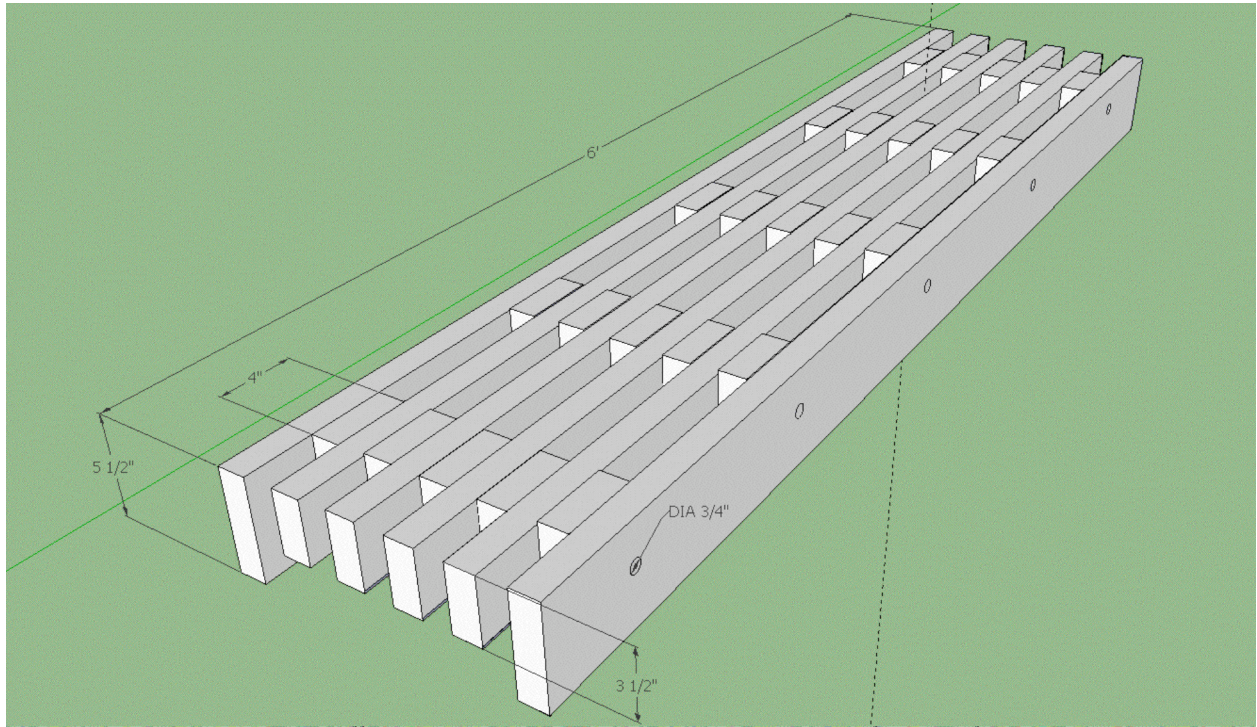


## **Andrew Bowman Smith Gilbert Gardens Eagle Scout project**

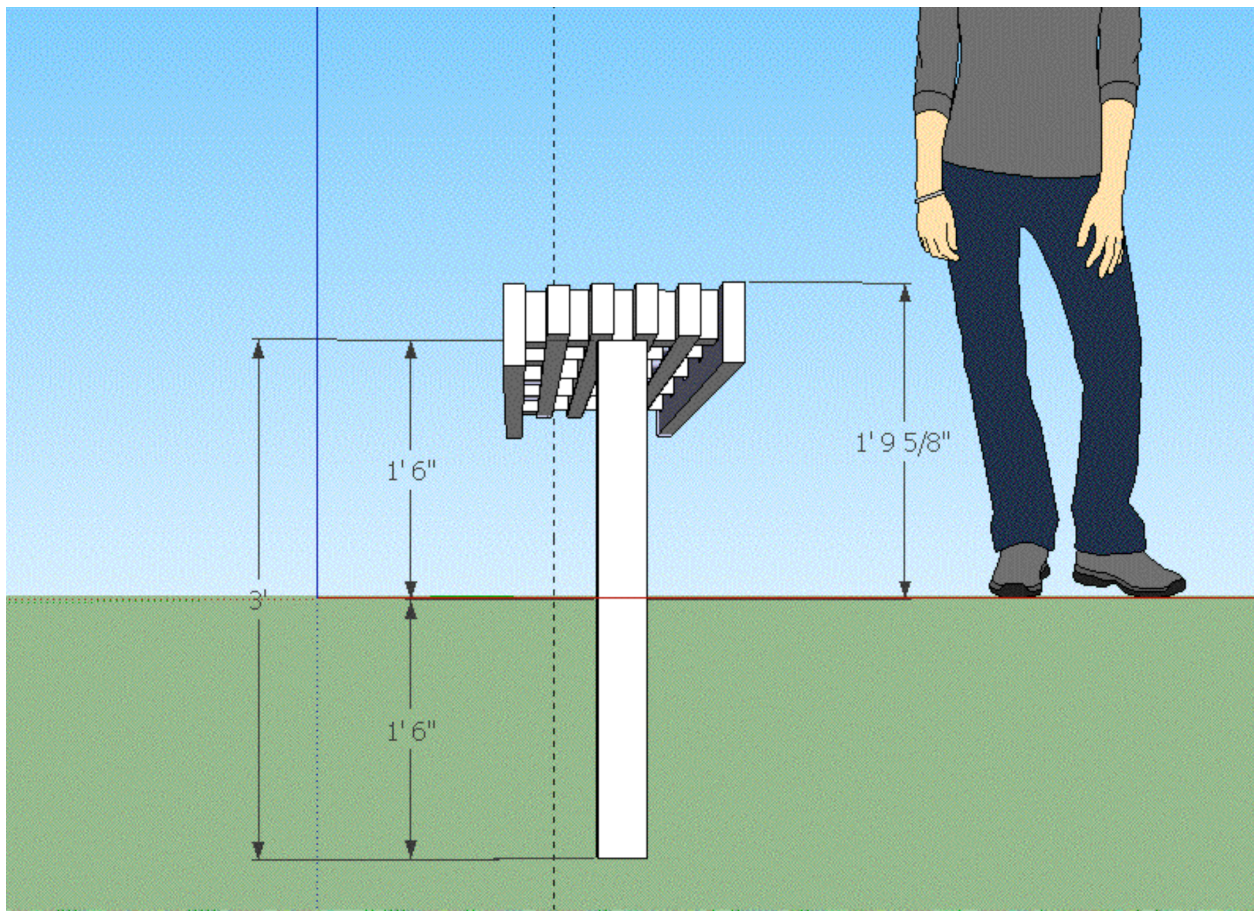
I met with Mr. Doug Davis and agreed that I would clear an area and build three benches. Mr. Davis requested that I use Western Red Cedar to match the other furniture throughout the gardens.

I searched many designs on the internet, and sent two pictures to Mr. Davis and we found a design that we both agreed on. Sadly the design was made by another scout, so we didn't have the design completely, and I had to do even more searching to find a CAD software that would allow me to do all the dimensioning to this drawing. With my prior knowledge from engineering drawing class I took last semester, I knew how to use CAD software, and I also knew that wood is always half an inch shorter than the actual size you get it as and say it is. I emailed the boy who designed the benches and he sent me supplies list he used to build his benches with. One of the only changes I made to his supply list, is he made more benches than I am going to build, and I had to decrease the number of supplies used, I also had to change that he used pressure treated wood, and Mr. Davis and I Want to use red cedar to build our benches. With the software I found, I was able to make a majority of the bench design, so I can get an image to base my write up off of. Along with building these benches, I will have to dig the holes that I will have to fill with cement, which the posts will be set in. I will also have to clear the area for the benches that are currently covered by understory and that will take a bit of time.

## Bench Design



This shows the dimensions for the bench top. the wood pieces will first be glued together with wood glue and then connected with 18" tie rods that will have nylon bolts at each end. the end of the hole will be routed to a   " diameter to attach the bolts.



I designed the posts to be 3 feet long, 18" under ground and 18" above ground. This will put the bench seat at 1' 9 5/8" above ground. This should be comfortable.